APPENDIX C

Noxious Weed Management Plan

I. MANAGEMENT OF NOXIOUS WEEDS

This Noxious Weed Management Plan (Plan) has been developed in accordance with the Humboldt Toiyabe National Forest (HTNF) Noxious Weed Management Plan (Supplement No.: 2000-2004-1). Access road construction and other ground-disturbing activities associated with the Project's exploration work may potentially allow noxious and invasive weeds to establish and spread in new locations and allow existing infestations to increase in extent and/or density. Accordingly, this Plan has been developed to describe the actions Newcrest will take to prevent, control and monitor the spread of noxious and invasive weeds during the construction, maintenance and decommissioning phases of the Project.

II. RISK ASSESSMENT FACTORS AND RATING

Newcrest will utilize the risk assessment established in the Humboldt Toiyabe National Forest Noxious Weed Management Plan (Supplement No.: 2000-2004-1) to guide noxious and invasive weed management actions. The risk assessment determines the likelihood of noxious and invasive weeds spreading into an area, and the consequence of weed establishment. Newcrest will employ the risk assessment at a study area defined by each unique surface disturbing component of the Project (i.e., drill sites, temporary staging areas, waterline pipe, access roads [*new* and *existing* subject to Project-related use within Project Area] and safety berms) prior to surface disturbing activities commencing. The risk assessment factors, rating and procedure are provided in Exhibit 1.

III. IDENTIFICATION OF NOXIOUS WEED AREAS

All noxious weeds in the state of Nevada are regulated by the Nevada Department of Agriculture. The Nevada Revised Statutes define a noxious weed as "any species of plant which is, or likely to be, detrimental or destructive and difficult to control or eradicate." The Nevada noxious weed list is provided in Exhibit 2, including noxious and invasive weeds federally listed by the Natural Resources Conservation Service (NRCS) and locally listed by Nevada Department of Agriculture. Noxious and invasive weed species provided in Exhibit 2 are subject to the management actions provided in this Plan.

Newcrest is only responsible for the control of noxious and invasive weed species provided in Exhibit 2 that are a result of or interfere directly with construction-related, surface-disturbing activities. Noxious and invasive weed infestations identified to exist in and around the Project Area by Newcrest and the HTNF district noxious weed coordinator are illustrated in Figure C-1. Prior to vegetation and soil disturbing activities, known noxious and invasive weed infestations (Figure C-1) and unknown weed infestations identified during risk assessments will be marked with signs or flagging. Noxious and invasive weed areas include all locations where noxious and invasive weed species need to be controlled. Signs or flagging placed within the Project Area will alert construction personnel to the locations and types of weed infestations.

IV. PREVENTION AND CONTROL MEASURES

Based on the results of the risk assessment (Exhibit 1), Newcrest will incorporate noxious and invasive weed prevention and control measures into the Project as applicable following the Humboldt Toiyabe National Forest (HTNF) Noxious Weed Management Plan (Supplement No.: 2000-2004-1). Noxious and invasive weed prevention and control measures provided below are organized under the different activities associated with the Project.

A. Minerals Exploration Guidelines

The Project requires construction of access roads, drill sites, safety berms, temporary staging areas and water pipelines. These activities will require heavy equipment, which can transport noxious and invasive weed seeds and plant parts. Disturbance and exposure of soil from construction activities can also foster conditions that increase opportunity for weeds to invade and establish in disturbed areas. Accordingly, Newcrest will implement the following measures to limit the introduction and spread of noxious and invasive weeds in the Project Area.

- Avoid or minimize all types of travel through noxious and invasive weed areas.
- Minimize removal of roadside vegetation when constructing, reconstructing or maintaining access roads.
- Re-establish vegetation on disturbed sites as soon as practicable when exploration work is completed.
- For long term disturbance sites such as haul roads or ancillary sites consider planting appropriate cover crop determined by the USFS.
- Utilize native species in reclamation, when possible. Seek a seed mix that includes fast, early-growing species as well as species that will become established onsite to protect soils and create long-term watershed stability.
- Any mulch or equivalent must be weed free.
- Topsoil from infested areas will be salvaged separately and only spread within the previously infested area.
- If seed is required, purchase blue tag certified see. Secondarily, purchase pure seeds of desirable species and mix the seeds only after the individual seed bags have been tested. To avoid weed contaminated seed, each lot will be tested by a certified seed laboratory against the State of Nevada Noxious Weed List and documentation of seed inspection test provided for.
- Save topsoil from disturbance and incorporate into onsite reclamation. Avoid imported topsoil and non-organic materials. Seed topsoil stockpiles with cover crop determined by the USFS.
- Clean and inspect all heavy-equipment and other vehicles before bringing into the Project Area. Vehicles and equipment exiting a known infestation area will be washed onsite prior to mobilizing to another work area or leaving the Project Area. Concentrate inspection and cleaning on the undercarriage, with special emphasis on axles, frame, cross-members, motor mounts, underneath steps, running boards, and front bumper/brush guard assemblies. Sweep vehicle cabs and deposit refuse in waste receptacles. Newcrest will coordinate with the HTNF district noxious weed coordinator to designate where equipment will be washed, which will generally occur onsite and away from water.
- Monitor all current and recently closed drill sites for noxious and invasive weeds and treat weed infestations where found.
- Maintain as much microhabitat for desirable vegetation as feasible in areas that will have ground disturbance to help suppress noxious and invasive weeds. Minimize the removal of trees and other roadside vegetation during construction, reconstruction, and maintenance, particularly on southerly aspects, except when removal is required for public safety.
- Do not stage equipment and resources in weed-infested areas.

- Treat noxious and invasive weeds along Project access roads prior to construction and maintenance activities to reduce the threat of inadvertent redistribution; treat any noxious and invasive weed infestation within the Project Area that results from Project activities for at least a 3-year period following the last activity.

B. Road Construction and Heavy Equipment Use Guidelines

Newcrest will identify and control existing noxious and invasive weed infestations in the Project Area and contain any new weed infestations that result from Project activities related to road construction and heavy equipment use. The following measures will be incorporated into the Project during road construction and activities involving heavy equipment to limit the introduction and spread of noxious and invasive weeds in the Project Area.

- Prior to construction equipment moving into the Project Area, evaluate and prioritize noxious and invasive weeds along existing access roads leading to the Project Area following risk assessment protocol (Exhibit 1) and treat as necessary.
- Inventory noxious and invasive weed infestations during initial road construction lay out following risk assessment protocol (Exhibit 1) and through coordination with the HTNF district noxious weed coordinator (existing database search). This information will be used to:
    - Determine contaminated topsoil or sub-soil disposal sites.
    - Determine weed-free borrow sites.
    - Select noxious and invasive weed-free staging areas and parking sites.
    - Identify areas to be avoided during construction.
    - Establish heavy equipment turn around sites.
    - Determine pre-construction weed treatment.
- Remove all mud, dirt, and plant parts from all off-road equipment, if applicable, before moving into Project Area.
- When practical, clean all equipment that will be used for the Project prior to entering the Project Area. Vehicles and equipment exiting a known infestation area will be washed onsite prior to mobilizing to another work area or leaving the Project Area. For heavy equipment and vehicles, concentrate inspection and cleaning on the undercarriage, with special emphasis on axles, frame cross-members, motor mounts, and underneath steps, running boards, front bumper/brush guard assemblies, and radiators.
    - Identify sites where equipment may be cleaned in conjunction with the HTNF district noxious weed coordinator.
    - If cleaning occurs in the field, locate sites away from watercourses or areas that will drain into a stream system.
    - It is preferable to use a pressure washer that is capable of 2,000-PSI.
    - Inspect all equipment used in reclamation and verify that all equipment is cleaned prior to beginning work.
    - Monitor the cleaning areas for weeds for several years. GPS site, map, record for others, and create waypoint directions. Document by taking photos. If present record species, spray time, and herbicides.
- Eliminate the movement of existing and new noxious and invasive weed species caused by moving infested gravel and fill materials. Inspect and approve all gravel and borrow sources outside the Project before use and transport.

- If noxious and invasive weeds are present and unavoidable, strip at least the top 8" of native soil and stockpile material at a location that will provide easy access for future treatment. In some cases, if the weeds that are present propagate from the roots, the sub soil in that area should also be removed. Quarantine these contaminated stockpile sites and identify and document the site location. Sign and monitor these sites, and treat if noxious and invasive weeds are noted.
- Maintain stockpiled weed free material in weed free conditions.
- If straw, mulch, or hay is used for road stabilization and erosion control, it must be certified noxious weed-seed free against the State of Nevada Noxious Weed List and documentation of seed inspection test provided.
- Re-establish vegetation (native where practical) on bare ground caused by ground-disturbing activities to minimize noxious and invasive weed spread. Revegetation may include planting, seeding, fertilization and noxious weed free mulching as necessary. Use native material where appropriate and available.
    - Revegetate disturbed soil in a manner that optimizes plant establishment for that specific site, unless ongoing disturbance at the site will prevent noxious and invasive weed establishment or spread. Monitor and re-treat as needed until site is successfully revegetated according to Project standards.
    - Stockpile weed seed free topsoil and replace on disturbed areas such as road embankments, cuts, fills, shoulders and staging areas, where practical.
    - Replant as soon as practical after the disturbance activity to take advantage of the seedbed and to establish desirable species before the arrival of invading noxious and invasive weeds. Use local seeding recommendations. To avoid weed contaminated seed, each lot shall be tested by a certified seed laboratory against the State of Nevada Noxious Weed List and documentation of seed inspection test provided.
    - Use local seeding guidelines for detailed procedures and appropriate mixes. If the risk for invasion by noxious and invasive weeds is rated as *High*, use aggressive, early season species. If the risk is *Low*, use a more diverse mixture of native species that may take longer to establish. Include natives, pioneer species, and/or nurse crops. Select for low nutrient demanding species to reduce the need for fertilization. Monitor seeded sites. Spot re-seed as needed.
- Maintain as much microhabitat for desirable vegetation as feasible in areas that will have ground disturbance to help suppress noxious and invasive weeds. Minimize the removal of trees and other roadside vegetation during construction, reconstruction, and maintenance, particularly on southerly aspects, except when removal is required for public safety.

C. Road Maintenance Guidelines

Heavy equipment used by Newcrest to maintain new and existing USFS access roads can increase opportunities for noxious and invasive weeds to become established through surface disturbance, transport of weed seeds and plant parts and through reclamation activities. Newcrest will utilize the following measures to limit the spread of noxious and invasive weeds during maintenance activities in the Project Area.

- Minimize removal of road-side vegetation when maintaining roads or other developments.
- If road maintenance is to occur on roads that have identified weed infestations, treat the areas before maintenance begins or schedule maintenance for spring or early summer prior to the seed-set stage. Start all road grading activities at the end of the weed infestation and proceed toward the center of the infestation.

- Re-establish vegetation on disturbed sites when road maintenance is completed. Avoid seeding areas where natural regeneration is possible. Do not blade or pull ditches when weeds are in seed set.
- Clean and inspect all heavy-equipment and other vehicles before entering the Project Area. Vehicles and equipment exiting a known infestation area will be washed onsite prior to mobilizing to another work area or leaving the Project Area. Inspection and cleaning should concentrate on the undercarriage, with special emphasis on axles, frame, cross-members, motor mounts, and underneath steps, running boards, and front bumper/brush guard assemblies. Sweep vehicle cabs and deposit refuse in waste receptacles. Newcrest will coordinate with the HTNF district noxious weed coordinator to designate where equipment will be washed. This will generally occur onsite and away from water.
- Monitor all recently completed construction sites for noxious and invasive weeds.
- Minimize disturbance to topsoil. Avoid using imported sand, gravel, rock and organic materials where possible. If it is necessary to use materials from offsite, use cleaned or inspected products.
- Select noxious and invasive weed-free staging areas.
- Stockpile weed seed free topsoil and replace on disturbed areas such as road embankments, cuts, fills, shoulders and staging areas, where practical. Use certified weed-seed free straw and mulch on road stabilization and erosion control projects.
- Eliminate the movement of existing and new noxious and invasive weed species caused by moving infested gravel and fill material.
- Consider the potential for moving noxious and invasive weeds when establishing new material sources on sites where noxious weeds are present, and take necessary corrective action.
- Inspect active gravel and borrow sources and determine them to be noxious weed free before use.

D. Reclamation Guidelines

Reclamation work often involves the use of plant or non-organic materials, which may inadvertently introduce noxious and invasive weeds. Newcrest will take the following precautions to reduce the risk of inadvertent redistribution of noxious and invasive weeds during reclamation actions in the Project Area.

- Avoid seeding small areas where natural regeneration is possible.
- Always have seed tested. A certified seed laboratory should test each lot according to Association of Seed Technologists and Analysts (AOSTA) standards, test seeds for species documented on the State of Nevada Noxious Weed List plus any specific species of concern. Document all test results. Purchase pure seeds of desirable species and mix the seeds only after the individual seed bags have been tested.
- Re-establish vegetation as soon as practical after the disturbance activity to take advantage of the seedbed and to establish desirable species before the arrival of invading noxious and invasive weeds. Use local seeding guidelines for detailed procedures and appropriate mixes. Choose species that are most adapted and can provide for long-term site occupancy. If the risk for invasion by noxious and invasive weeds is rated as *High*, use aggressive, early season species. If the risk is *Low*, use a more diverse mixture of native species that may take longer to establish. Include natives, pioneer species, and/or nurse crops. Select for low nutrient demanding species to reduce the need for fertilization. Monitor and re-treat as needed until site is successfully re-vegetated according to Project standards. Spot re-seed as needed.

- Maintain as much microhabitat for desirable vegetation as feasible in areas that will have ground disturbance. Minimize the removal of trees and other roadside vegetation during construction, reconstruction, and maintenance, particularly on southerly aspects, except when removal is required for public safety.
- Re-establish vegetation (native where practical) on bare ground caused by ground-disturbing activities to minimize noxious and invasive weed spread.
- Stockpile weed seed free topsoil and replace on disturbed areas such as road embankments, cuts, fills, and shoulders; gravel pits; skid trails; landings; staging areas; and so forth, where practical.
- Identify sites where equipment can be cleaned. If cleaning occurs in the field, choose sites away from watercourses or areas that will drain into a stream system. It is preferable to use a pressure washer that is capable of 2,000-PSI. Inspect all equipment used in reclamation and ensure that all equipment is cleaned prior to beginning work. For heavy equipment and vehicles inspection and concentrate cleaning on the undercarriage, with special emphasis on axles, frame cross-members, motor mounts, and underneath steps, running boards and front bumper/brush guard assemblies. Monitor the cleaning areas for weeds for several years.
- When using native materials such as rock, sand, and gravel, select sites that are weed free.
- Use light-on-the-land methods to the greatest extent possible for reclamation actions.

V. PESTICIDE APPLICATION

Newcrest will prepare and obtain a Pesticide Use Proposal (PUP; Form FS-2100-0002) from the USFS prior to application of herbicide in the Project area. The PUP will identify a list of approved herbicides, surfactants and/or dyes that may be used, and site-specific information about where and when the herbicides will be used, locations of storage and disposal of containers, maximum application rate, target species, general site characteristics, description of sensitive resources present and protective measures, and other weed control measures that could be used. Pesticides will be selected from an approved USFS list, as summarized in Table 1.

Table 1. USFS Approved Pesticide List

Pesticide Name	Active Ingredient
Habitat/Polaris	Imazapyr
Garlon	Triclopyr
Escort/Patriot	Metsulfuron
Transline	Clopyralid
Tordon	Picloram
Oust	Sulfometuron-methyl
Telar	Chlorsulfuron
Weedar 64/LV4	2,4-D
Plateau	Imazapic
Landmark	Sulfometuron and Chlorsulfuron
Rodeo	Glyphosate
Milestone	Aminopyralid
Grapple	Rimsulfuron

All PUPs submitted to the USFS will be structured with a calibrated volume of 20 gallons per acre unless certain product labels require elsewise. Pesticide applicator personnel involved with the Project will be required to complete pesticide certification training and have a current up to date Certified Pesticide Applicators License administered by the Nevada Department of Agriculture.

Pesticides will not be stored, mixed, or loaded, or equipment rinsed within 100 feet of natural water sources. Pesticides and pesticide containers will be transported, stored, and disposed of in accordance with the Nevada Department of Agriculture and federal regulations.

Spot applications or low-boom broadcast operations are preferred to limit contamination of adjacent areas. Considerations for pesticide applications include applying pesticides on a spot treatment basis, suspending herbicide applications whenever weather conditions may cause off-site chemical drift, using drift-control agents, and utilizing low-volatile formulations.

Treated areas will be posted with appropriate signs that observe the restricted entry intervals specified by the product label. Prior to herbicide application, all pesticide applicator personnel will be instructed where/if there is a known occurrence or suitable habitat for protected species or other sensitive areas. Sensitive areas will be considered avoidance areas unless otherwise coordinated with the USFS and will also be clearly marked.

All pesticide applications will be documented daily in Pesticide Application Records (PARs) and shared with the USFS. Information documented in each PAR include the product name, EPA registration number, total amount applied, date of application, location of application, temperature at start and finish, wind velocity and direction at start and finish, time of day at start and finish, crop, commodity, item, or site, and size of area treated, method of application, purpose of application, name(s) of applicator(s), certification number(s), and the amount of surfactants or dyes used in the spray mixture.

E. Monitoring and Reporting

Managed noxious and invasive weed infestations will be documented using the current USFS noxious weed inventory, treatment, and monitoring system. The purpose of monitoring is to verify that areas of the Project Area containing identified noxious and invasive weeds are progressing toward the long-term goal of appropriate vegetative cover and diversity, and that existing weed populations are not spreading into new areas as a result of Project activities.

As discussed in Section III, Newcrest will focus control efforts on areas that contain noxious and invasive weeds listed under the state of Nevada's noxious weed list and species federally listed. Monitoring will be conducted annually, as necessary, for a length of time identified through implementation of the risk assessment. Managed weed infestations rated as *Moderate* require monitoring for at least three consecutive years. Noxious and invasive weed infestations rated as *High* require monitoring for at least five consecutive years.

Monitoring data will be compared annually to determine management effectiveness and evaluate changes in noxious and invasive weed size and composition.

EXHIBIT 1. RISK ASSESSMENT FACTORS AND RATING

Factor 1: Likelihood of Noxious Weeds Species Spreading

- None (0): Undesirable plants, including noxious weed species not located within or immediately adjacent to the study area. Project activity is not likely to result in the establishment of undesirable weed species in the study area.
- Low (1): Undesirable plant species present in areas adjacent to but not within the study area. Project activities can be implemented and prevent the spread of undesirable plants into the study area.
- Moderate (5): Undesirable plant species located immediately adjacent to or within the study area. Project activities are likely to result in some areas becoming infested with undesirable plant species even when preventative management actions are followed. Control measures are essential to prevent the spread of undesirable plants or noxious weeds within the study area.
- High (10): Heavy infestations of undesirable plants are located within or immediately adjacent to the study area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of undesirable plants on disturbed sites throughout much of the study area.

Factor 2: Consequence of Noxious Weed Establishment

- Low (1): None. No cumulative effects expected.
- Moderate (5): Possible adverse effects on site and possible expansion of infestation within study area. Cumulative effects on native plant community are likely, but limited.
- High (10): Obvious adverse effects within the study area and probable expansion of noxious weed infestations to areas outside the study area. Adverse cumulative effects on native plant community are probably.

Step 1. Identify level of likelihood and consequence adverse effects and assign values according to the following. Project disturbances having a *Moderate* or *High* rating will require management action using the measures described in Section III.

- None: 0
- Low: 1
- Moderate: 5
- High: 10

Step 2. Multiply level of likelihood by consequences.

Step 3. Use the value resulting in Step 2 to determine Risk Rating and Action (Table 1):

Table 1. Risk Rating and Management Actions

Value	Risk Rating	Action
0	NONE	Proceed as planned
1-10	LOW	Proceed as planned. Initiate control treatments on noxious weeds that get established in the area.
25	MODERATE	Implement preventative management measures to reduce the risk of introduction or spread of noxious weeds into the area. Monitor the area for at least 3 consecutive years and provide for control of new infestations.
50-100	HIGH	Modify project design and implement preventative management measures to reduce the risk of introduction or spread of noxious weeds into the area. Monitor the area for at least 5 consecutive years and provide for control of new infestations.

EXHIBIT 2. NEVADA NOXIOUS WEED LIST BY CATEGORY

Common Name	Scientific Name[1]	Federal Status[2]
Category A Weeds[3]		
African rue	*Peganum harmala*	-
Austrian fieldcress	*Rorippa austriaca*	-
Barbed Goatgrass	*Aegilope triuncialis*	
Buffelgrass	*Pennisetum ciliare*	
Camelthorn	*Alhagi maurorum*	-
Common crupina	*Crupina vulgaris*	Noxious – Terrestrial
Common St. Johnswort	*Hypericum perforatum*	-
Crimson fountain grass	*Pennisetum setaceum*	-
Curlyleaf Pondweed	*Potamogton crispus*	
Desert Knapweed	*Volutaria tubuliflora*	
Dyer's woad	*Isatis tinctoria*	-
Eurasian watermilfoil	*Myriophyllum spicatum*	-
Flowering Rush	*Butomus umbellatus*	
Giant salvinia	*Salvinia molesta*	Noxious – Aquatic
Goatsrue	*Galega officinalis*	Noxious - Terrestrial
Houndstongue	*Cynoglossum officinale*	-
Hydrilla	*Hydrilla verticillata*	Noxious – Aquatic
Iberian starthistle	*Centaurea iberica*	-
Jointed Goatgrass	*Aegilops cylindria*	
Malta starthistle	*Centaurea melitensis*	-
Mediterranean sage	*Salvia aethiopis*	-
Purple loosestrife	*Lythrum salicaria, L. virgatum & cultivars*	-
Purple starthistle	*Centaurea calcitrapa*	-
Rush skeletonweed	*Chondrilla juncea*	-
Squarrose knapweed	*Centaurea virgata*	-
Sulfur cinquefoil	*Potentilla recta*	-
Swainsonpea	*Sphaerophysa salsula*	-
Syrian beancaper	*Zygophyllum fabago*	-
Ventenata	*Ventenata dubia*	
Yellow starthistle	*Centaurea solstitialis*	-
Yellow toadflax	*Linaria vulgaris*	-
Category B Weeds[4]		
African mustard	*Brassica tournefortii*	-
Black henbane	*Hyoscyamus niger*	-
Dalmatian toadflax	*Linaria dalmatica*	-
Diffuse knapweed	*Centaurea diffusa*	-
Giant reed	*Arundo donax*	-
Horsenettle	*Solanum carolinense*	-
Leafy spurge	*Euphorbia esula*	-
Mayweed chamomile	*Anthemis cotula*	-

Common Name	Scientific Name[1]	Federal Status[2]
Medusahead	*Taeniatherum caput-medusae*	-
Silverleaf nightshade	*Solanum elaeagnifolium*	-
Spotted knapweed	*Centaurea maculosa*	-
thistle Sow	*Sonchus arvensis*	-
Category C Weeds[5]		
Canada thistle	*Cirsium arvense*	-
Hoary cress / Whitetop	*Cardaria draba*	-
Johnsongrass	*Sorghum halepense*	-
Musk thistle	*Carduus nutans*	-
Perennial / Broadleaf pepperweed	*Lepidium latifolium*	-
Poison-hemlock	*Conium maculatum*	-
Puncturevine	*Tribulus terrestris*	-
Russian knapweed	*Acroptilon repens*	-
Saltcedar (tamarisk)	*Tamarix* spp.	-
Scotch thistle	*Onopordum acanthium*	-
Spotted water hemlock	*Cicuta maculata*	-
Other Weeds / Watch List		
Bull thistle	*Cirsium vulgare*	Nonnative, not on noxious weed list
Cheatgrass	*Bromus tectorum*	Nonnative, not on noxious weed list
Yellow spinethistle	*Cirsium ochrocentrum*	Nonnative, not on noxious weed list

[1] State of Nevada, Department of Agriculture. Nevada Noxious Weed List By Category. NAC 555.010.
[2] Animal and Plant Health Inspection Service (APHIS). 2012. Federal Noxious Weed List. Riverdale, Maryland.
[3] Category A noxious weeds are generally not found or are limited in distribution throughout the State.
[4] Category B weeds are generally established in scattered populations in some counties of the State.
[5] Category C weeds are generally established and widespread in many counties of the State.

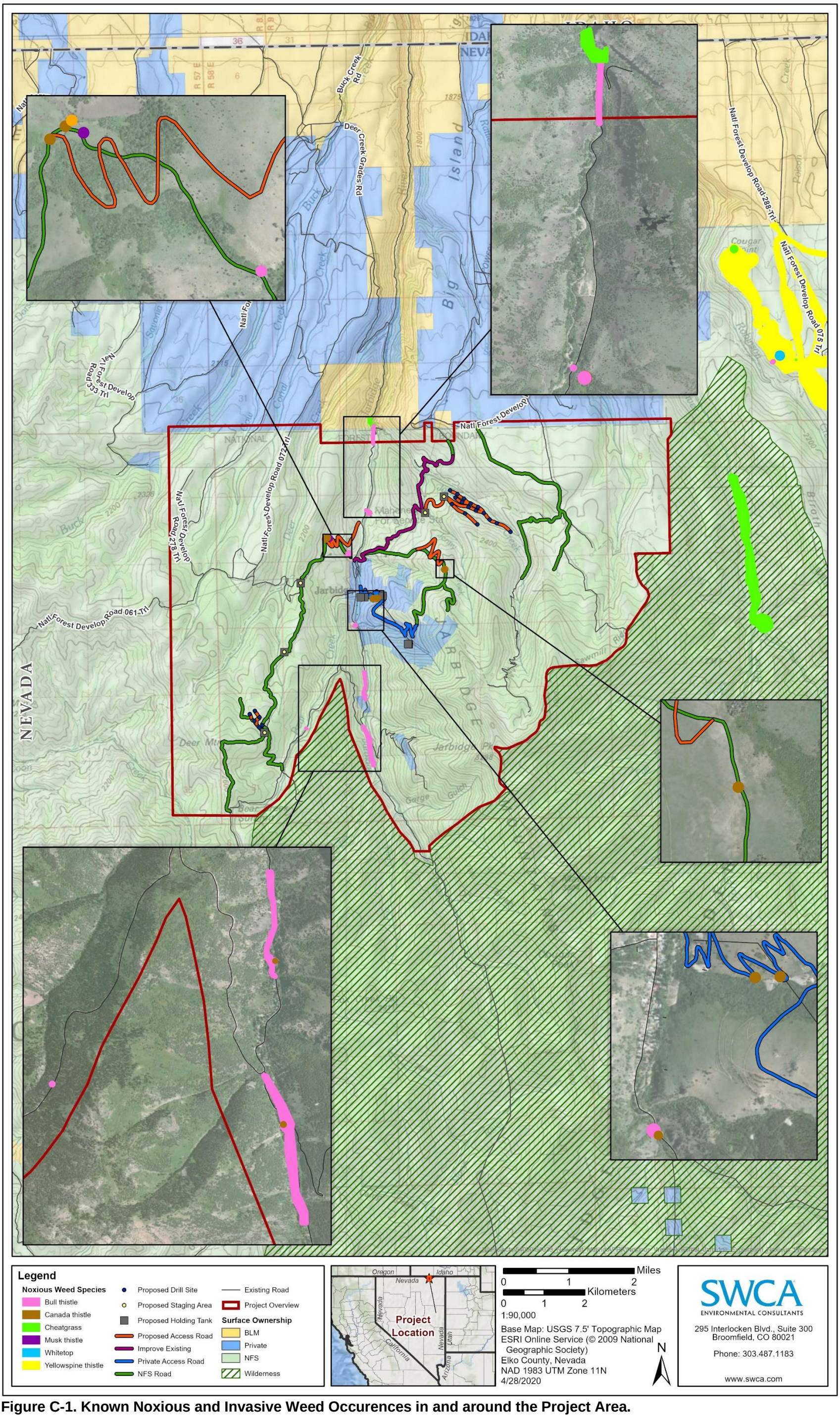

Figure C-1. Known Noxious and Invasive Weed Occurences in and around the Project Area.